GENERAL QUESTIONS:

Q. *State your name and business address*

R. Dave Wolfer, Department of Natural Resources, PO Box 47030, Olympia Washington

S. *Where are you employed and what is your job title?*

T. Department of Natural Resources. Assistant Division Manager Engineering

U. *What is your educational background?*

V. Graduated with a B.S. in Forest Engineering from the University of Washington

W. *Summarize your Professional Experience:*

X. 26 years working for the DNR in road layout, design, and road management. Licensed

Professional Engineer and Licensed Professional Land Surveyor #16934. I manage the program that provides for the maintenance, repair, and abandonment of DNR's roads, as well as provides standards and procedures for planning, design and construction of new roads.

Q. What is the subject mater of your testimony?

A. Pipeline impacts to the road system that provides access to and exists on State owned forest lands managed by DNR.

Q. Have you read the application?

A. Yes

Q. What sections of the information provided satisfy your concerns regarding roads?

A. None of the sections completely satisfy the concerns I have concerning roads managed by

the DNR.

Q. What concerns do you have in relation to road systems on State land managed by DNR?

A. My two main areas of concern are:

1. How the pipeline would impact the general management of our road system, and

2. What assurances will we have that the pipeline will be constructed and maintained in a way that minimizes damage to the structural integrity of our roads and associated drainage structures.

Q. *What state lands do you anticipate being impacted?*

A. (Use map Exhibit DW-1)

Q: What aspects of managing a road could be affected by a pipeline crossing state land?

A. A pipeline can impact all aspects of a road network management including road planning, design & construction, use management, maintenance, and abandonment when the pipeline crosses or parallels road segments. In addition, the functional needs of constructing, operating, and maintaining the pipeline can have a significant impact on the road system because of increased administrative traffic and increased exposure to damage caused by heavy construction equipment.

Q. In what ways would road network planning be adversely affected by a pipeline?

A. The presence of a pipeline can impact DNR's ability to add roads both on DNR lands and adjacent lands to provide new or additional access to our ownership. For example, the presence of pipeline segments located on marginally unstable slopes may preclude or complicate economical road construction where the road crosses or runs

parallel with the pipeline.

DNR would also be hampered in its ability to allow Right of Way access for adjacent landowners for the same reasons as above, which could in turn create a reluctance in others to grant DNR easements.

It is very likely that additional staff time would be required to consult, design, and obtain permission whenever DNR wanted new roads to cross or be built next to a pipeline on State property. Current regulatory permit processes already consume hefty amounts of staff time to complete. Having to contact and coordinate with one more entity could be prohibitive.

Q. *In what ways could road design and construction be impacted by the presence of a pipeline?*

A. The vulnerability of the pipeline, above or below ground, requires additional road design measures, over and above DNR standard practices, to protect the pipe in typical pipeline easements. There is usually a requirement that new roads crossing the pipe locations, if allowed at all, have dramatic amount of additional fill and surfacing rock over the pipe. This would add significant cost if the proposed road ran parallel to the pipeline for any distance.

In addition, road design on steep slope near the pipeline could create additional design efforts to ensure that road locations would not compromise the stability of the pipe and support structures and conversely that the pipeline structures would not compromise the structural integrity of the proposed road.

Q. In what ways could road use management be affected by the pipeline?

A. The addition of unrestricted access rights to Olympic Pipeline for pipeline construction and then maintenance could impact DNR's ability to restrict access for others to state lands or DNRs ability to protect forest resources during high fire danger. We also need to be able to close roads to access, from time to time, to provide protection from the impacts of public use and vandalism, and without assurance that gates would be installed where necessary and closed when necessary, we could be placing trust assets at risk from this exposure.

From experience, we have learned that there is usually an unjustified expectation from utility managers that our roads be maintained for full time access. It is not a policy of DNR's to remove snow, or provide immediate restoration of access when DNR roads are washed out during storm events. DNR repairs damaged roads when public resources are in jeopardy or DNR needs the road for commercial road use activities that contribute road use fees to the Access Road Revolving Fund (ARRF), such as timber hauling and electronic site leases

In addition, any pipeline corridors that intersect road locations tend to generate additional uncontrolled access for off road vehicles, mountain bikes, hikers, and folks with garbage to dump.

Q. In what ways could road maintenance be affected by the pipeline?

A. The additional traffic introduced by Olympic Pipeline staff and contractors during construction and for maintenance and operation of the pipeline, will increase the

maintenance cost on the roads used. We would need to have the ability to recover additional cost incurred do to actions by Olympic Pipelines activities.

The vulnerability of the pipeline also requires extra staff time to deal with during maintenance operations. Culvert replacement, road prism restoration, rock surface replacement, ditch maintenance, all take more time and care when done near utility easements to avoid damage to the pipeline structure.

Q. In what ways could road abandonment opportunities be affected?

A. Water quality is affected by the mere presence of road, whether or not they are being used. Our department policy is to be very aggressive about stabilizing and removing roads that are no longer needed for management purposes. Roads that are burdened with granted access rights can not be abandoned. This severely limits our ability to permanently or temporarily close or abandoned roads to improve water quality, or so we can access new areas without increases to the background levels of sediment. The cost to the DNR on average for each mile of road maintenance is approximately $500 per year. In addition, each mile of actively used road generates approximately 900 tons of sediment per mile per year.

Q. In what ways can the construction, operation, and maintenance of the pipeline impact the agency's road system?

A. Damage to road itself can be caused by improper or careless ditch excavation or pipe driving which could undermine road fills or compromise drainage structures. Heavy equipment hauled and used during inclement weather may cause

permanent damage to road surfacing, sub-grades or drainage structures. Many forest road bridges are designed for log truck traffic and could be damaged if load capacities are exceeded. Improper trench fill compaction techniques or unsuitable fill material could compromise the road prism.

Q. In what ways could the construction of the pipeline cause problems with the agency's timber sale program?

A. Our timber purchasers rely on reasonable accessability to their timber sales so they can harvest timber and sell to the best possible markets. If there is a major disruption in that access, they may lose optimum timber selling opportunities. Whether or not they seek compensation for missed market opportunities, we find that inconveniences like disrupted haul ability can influence their bids on future sales, thus reducing revenue to the trust beneficiaries.

Q. In what ways could the construction, operation, and maintenance of the pipeline increase the liability of the roads program?

A. Accidents caused by construction, operation, and maintenance activities themselves or actions that create safety flaws in the road segments, all create increased liability issues for the DNR.

Q. How could Olympic Pipeline address these issues?

A. By appropriate construction stipulations, satisfactory to DNR and similar to those provided for the Department of Transportation, for mitigation of the impact caused by road and bridge pipeline crossings.

I certify and declare under the penalty of perjury under the laws of the State of Washington that the foregoing is true and correct to best of my knowledge and belief.

Signed at Olympia Washington on this ____ day of February, 1999.

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Dave Wolfer